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OM protein - protein search, using sw model

Run on: January 7, 2002, 15:40:13 ; Search time 154.28 Seconds

(without alignments)
23.046 Million cell updates/sec

Title: US-08-569-749-10

Perfect score: 294

Sequence: 1 PEOIASAGFYVGNDDVK.....CMESGDDPWQHAKWPPE 48

Scoring table:

BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters: 522463

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum March 0%

Maximum March 100%

Listing first 45 summaries

Database :

1: A.Geneseq.1101.*
2: /SID2/gcgdata/geneseq/geneseq/AA1980.DAT.*
3: /SID2/gcgdata/geneseq/geneseq/AA1981.DAT.*
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21: /SID2/gcgdata/geneseq/geneseq/AA2000.DAT.*
22: /SID2/gcgdata/geneseq/geneseq/AA2001.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match Length	ID	Description
1	294	100.0	48	18	AAW13552
2	294	100.0	604	18	AAW19747
3	294	100.0	604	18	AAW19582
4	294	100.0	604	18	AAW19546
5	294	100.0	604	19	AAW65295
6	294	100.0	604	20	AAV52703
7	294	100.0	604	20	AAV33997
8	294	100.0	1141	22	AAW60694
9	282	95.9	48	18	AAW13551
10	282	95.9	438	17	AAW04583
11	282	95.9	618	18	AAW19746

12	282	95.9	618	18	AAW13545	Human c-IAP1, Hom
13	282	95.9	618	20	AAV33998	Human cellular inh
14	270	91.8	618	18	AAW19583	Human apoptosis in
15	270	91.8	618	19	AAW69296	Human HIAP-2 prote
16	269	91.5	600	19	AAW69298	Murine c-IAP-1 prot
17	269	91.5	612	18	AAW13555	Murine c-IAP-1, Mus
18	269	91.5	612	19	AAW69299	Murine HIAP-2 prot
19	263	89.5	591	18	AAW19586	Mouse apoptosis in
20	259	88.1	602	18	AAW19585	Mouse apoptosis in
21	259	88.1	610	22	AAW52877	Human protein sequ
22	193	65.6	280	22	AAW13478	Human protein sequ
23	193	65.6	298	21	AAV4907	A human proliferat
24	193	65.6	298	21	AAV69182	Human inhibitor of
25	177	60.2	496	18	AAV19745	Human inhibitor of
26	177	60.2	497	18	AAW19581	Human apoptosis in
27	177	60.2	497	19	AAW69294	Human XIAP protein
28	177	60.2	497	21	AAV59985	Human X-linked inh
29	173	58.8	236	21	AAV81440	Human XIAP protein
30	173	58.8	236	21	AAV81440	Human XIAP (an inh
31	173	58.8	236	22	AAW00365	Human IAP-1 like pro
32	173	58.8	236	22	AAW00365	Human IAP-1 like pro
33	173	58.8	1232	17	AAW88217	Chimpanzee IAP-1 li
34	173	58.8	1295	20	AAV14080	Neutrophil apoptosi
35	173	58.8	1295	20	AAV09560	Human apoptotic hormo
36	173	58.8	1403	18	AAW20032	Neutrophil apoptosi
37	173	58.8	1403	18	AAW20032	Neutrophil apoptosi
38	173	58.8	1403	20	AAV14079	Neutrophil apoptosi
39	173	58.8	1403	20	AAV09539	Human apoptotic hormo
40	173	58.8	1403	20	AAV09539	Human apoptotic hormo
41	172	58.5	236	22	AAW00367	Human XIAP protein
42	163	55.4	438	22	AAW81815	Goettlia IAP-like p
43	163	55.4	438	22	AAW81815	Drosophila mutant
44	163	55.4	438	22	AAW81815	Drosophila wild ty
45	163	55.4	438	22	AAW81815	Drosophila mutant

ALIGNMENTS

RESULT 1	
AAW13552	AAW13552 standard; Protein; 48 AA.
AC	AAW13552;
XX	
XX	22-JUL-1997 (first entry)
DT	
DE	Human c-IAP2 repeat 3.
XX	
XX	IAP: Inhibitor; apoptosis; RING finger domain; rest:inosts;
KW	myocardial infarction; nephritis; HIV.
OS	Homo sapiens.
PN	NO9706182-AL.
PD	20-FEB-1997.
XX	
XX	06-AUG-1996; 96WO-0812860.
XX	
XX	08-DEC-1995; 95US-0569749.
PR	08-AUG-1995; 95US-0512946.
XX	
XX	(TUL-) TULARIK INC.
PA	
XX	Goeddel DV, Rothe M.
PI	
DR	WPI; 1997-154209/14.
PT	Nucleic acids encoding cellular inhibitor of apoptosis proteins
PT	useful for apoptosis regulation in cells to reduce or increase
PT	apoptosis and for pharmacological screening
XX	

PS Claim 3; Page 25; 35pp; English.

XX The human cellular inhibitor of apoptosis proteins (C-IAP1/2 -

CC AAT61590/761591) comprise a series of defined structural domain

CC repeats and/or a RING finger domain: in particular, at least two of

CC a first domain repeat (AA13547 or AA13548), a second domain repeat

CC (AA13549 or AA13550), and a third domain repeat (AA13551 or AA13552)

CC and/or a RING finger domain (AA13553 or AA13554), or a consensus

CC sequence derived from these human genes.

CC The nucleic acid is used for recombinant prodn. of human cellular

CC inhibitor of apoptosis protein which modulates apoptosis

CC regulation. The nucleic acids are useful in therapies where

CC increased cell-specific apoptosis is desired, e.g. in restenosis,

CC inflammatory disease states, myocardial infarction, glomerular

CC nephritis, transplant rejection and infectious diseases, e.g. HIV.

CC They can also be used in conditions requiring a reduction in

CC apoptosis.

XX

XX Sequence 48 AA:

SQ

Query Match 100.0%; Score 294; DB 18; Length 48;

Best Local Similarity 100.0%; Pred. No. 1.9e-29;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PEOLASAGFYVGNSDVKCFCCDGLRCWESGDDPWVQHAKWPFCE 48

DB 1 peglasagfyvgnsdvkcfcddgjlrcwesgddpwvqhakwfpce 48

RESULT 2

AA19747

ID AA19747 standard; Protein; 604 AA.

XX

AC AA19747;

XX

DT 16-SEP-1997 (first entry)

XX

DE Human inhibitor of apoptosis protein homologue MHC.

XX

KM Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MHC;

KM degenerative disease; infectious disease; autoimmune disease;

KM cancer; therapy; diagnosis.

XX

OS Homo sapiens.

XX

PH Key Location/Qualifiers

FT 29..97

FT /label= BIR

FT Region 169..236

FT /label= BIR

FT Region 235..323

FT /label= BIR

FT Region 546..591

FT /label= RING_finger

XX

PN WO9723501-A1.

XX

PD 03-JUL-1997.

XX

PF 20-DEC-1996; 96WO-AU00827.

XX

PR 22-DEC-1995; 95AU-0007275.

XX

PA (AMRA-) AMRAD OPERATIONS PTY LTD.

XX

PI Vaux DL;

XX

DR WPI: 1997-350966/32.

DR N-PSDB: AAT72712.

XX

PT Isolated protein homologues of viral inhibitors of apoptosis - used

PT to modulate apoptosis for treatment of degenerative, infectious or

PT autoimmune diseases and cancer

XX

PS Claim 9; Page 58-62; 136pp; English.

XX

CC Mammalian IAP homologue C (MHC) (AA19747) is a human homologue of

CC baculovirus inhibitor of apoptosis protein (IAP). Its amino acid

CC sequence was deduced from a cDNA clone (see also AAT72712) isolated

CC from a human foetal liver cDNA library using primers based on

CC human B27 sequences that resembled the BIR repeats of Oryzla

CC pseudotungara polyhedrosis virus IAP. IAP homologues (see also

CC AA19743-46 and AA19748-52) and their derivatives and chemical

CC analogues can be used in methods for modulating apoptosis in animal

CC cells, specifically for treatment, by inhibition, of degenerative

CC and infectious disease or, by promotion, of cancer and autoimmune

CC disease.

XX

XX Sequence 604 AA:

SQ

Query Match 100.0%; Score 294; DB 18; Length 604;

Best Local Similarity 100.0%; Pred. No. 2.7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PEOLASAGFYVGNSDVKCFCCDGLRCWESGDDPWVQHAKWPFCE 48

DB 273 peglasagfyvgnsdvkcfcddgjlrcwesgddpwvqhakwfpce 320

RESULT 3

AA19582

ID AA19582 standard; Protein; 604 AA.

XX

AC AA19582;

XX

DT 02-SEP-1997 (first entry)

XX

DE Human apoptosis inhibitor HIAP-1.

XX

KM Apoptosis inhibitor; HIAP-1; HIV; AIDS; neurodegeneration;

KM myelodysplastic syndrome; ischemia; myocardial infarction; stroke;

KM reperfusion injury; toxin-induced liver disease; gene therapy;

KM diagnosis.

XX

OS Homo sapiens.

XX

PH Key Location/Qualifiers

FT 29..96

FT Domain /label= BIR-1

FT 169..235

FT Domain /label= BIR-2

FT 235..322

FT Domain /label= BIR-3

FT 546..591

FT Domain /label= RING_zinc_finger

XX

PN WO9706255-A2.

XX

PD 20-FEB-1997.

XX

PF 05-AUG-1996; 96WO-1B01022.

XX

PR 22-DEC-1995; 95US-0576956.

XX

PR 04-AUG-1995; 95US-0511485.

XX

PA (UYOT-) UNIV OTTAWA.

XX

PI Baird S, Korneluk RG, Liston P, Mackenzie AE;

XX

DR WPI: 1997-154262/14.

DR N-PSDB: AAT70837.

XX

PT Nucleic acid encoding an inhibitor of apoptosis polypeptide - used

PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detection

PT of susceptibility to apoptotic disease

XX

PS Claim 27: Page 72-74; 219pp; English.

XX

CC Human XIAP, IAP-1 and IAP-2 and murine M-XIAP, M-IAP-1 and

CC M-IAP-2 (AA119581-86) are a new class of mammalian proteins that

CC are inhibitors of apoptosis (IAP) and which are characterized by

CC the presence of a ring zinc finger domain (see also AA119587) and at

CC least one BIR (baculovirus IAP repeat) domain (see also AA119588).

CC The IAP amino acid sequences were deduced from cDNA clones (AA170837

CC and AA170838) from a human liver library. IAP polypeptides can be

CC expressed in host cells (in vitro or in vivo) and used in methods

CC for treating diseases and disorders involving apoptosis, esp. in a

CC human diagnosed as HIV-positive or as having AIDS, a

CC neurodegenerative disease, a myelodysplastic syndrome or an

CC ischemic injury, selected from myocardial infarction, stroke,

CC reperfusion injury, or a toxin-induced liver disease.

CC

XX Sequence 604 AA:

SO

Query Match 100.0%; Score 294; DB 18; Length 604;

Best Local Similarity 100.0%; Pred. No. 2,7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PEOLASAGFYVGNSDVVKPCDCGDLRCWESGDDPWQIAKKPPRCE 48

DB 273 peglasagfyyvgnsdvkvctccdgglrcwesgddpwqiakwfprce 320

RESULT 4

AA113546

ID AA113546 standard; Protein; 604 AA.

XX

AC AA113546;

XX

DT 22-JUL-1997 (first entry)

XX

DE Human c-IAP2.

XX

KW IAP: inhibitor; apoptosis; RING finger domain; restinosis;

KW myocardial infarction; nephritis; HIV.

XX

OS Homo sapiens.

XX

PN W09706182-A1.

XX

PD 20-FEB-1997.

XX

PF 06-AUG-1996; 96MO-US12860.

XX

PR 08-DEC-1995; 95US-0569749.

XX

PR 08-AUG-1995; 95US-0512946.

XX

XX (TULA-) TULARIK INC.

XX

PI Goeddel DV, Rothe M.

XX

DR WPI: 1997-154209/14.

DR N-PSDB: AA161591.

XX

PT Nucleic acids encoding cellular inhibitor of apoptosis proteins

PT useful for apoptosis regulation in cells to reduce or increase

PT apoptosis and for pharmacological screening

XX

PS Disclosure: Page 21-23; 35pp; English.

XX

CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -

CC AA161590/761591) comprise a series of defined structural domain

CC repeats and/or a RING finger domain; in particular, at least two of

CC a first domain repeat (AA113547 or AA113548), a second domain repeat

CC (AA113549 or AA113550), and a third domain repeat (AA113551 or AA113552)

CC and/or a RING finger domain (AA113553 or AA113554), or a consensus

CC sequences derived from these human genes.

CC The nucleic acid is used for recombinant prodn. of human cellular

CC inhibitor of apoptosis protein which modulates apoptosis

CC regulation. The nucleic acids are useful in therapies where

CC increased cell-specific apoptosis is desired, e.g. in restinosis,

CC inflammatory disease states, myocardial infarction, glomerular

CC nephritis, transplant rejection and infectious diseases, e.g. HIV.

CC They can also be used in conditions requiring a reduction in

CC apoptosis.

XX

SO Sequence 604 AA:

Query Match 100.0%; Score 294; DB 18; Length 604;

Best Local Similarity 100.0%; Pred. No. 2,7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 PEOLASAGFYVGNSDVVKPCDCGDLRCWESGDDPWQIAKKPPRCE 48

DB 273 peglasagfyyvgnsdvkvctccdgglrcwesgddpwqiakwfprce 320

RESULT 5

AA169295

ID AA169295 standard; Protein; 604 AA.

XX

AC AA169295;

XX

DT 13-NOV-1998 (first entry)

XX

DE Human IAP-1 protein.

XX

KW Inhibitor of apoptosis protein; apoptosis enhancer; NAIP polypeptide;

KW proliferative disease; IAP; therapy; cancer; human; IAP-1 protein.

XX

OS Homo sapiens.

XX

PN W09835693-A2.

XX

PD 20-AUG-1998.

XX

PF 13-FEB-1998; 98MO-IB00701.

XX

PR 13-FEB-1997; 97US-0800920.

XX

XX (UYOT-) UNIV OTTAWA.

XX

PI Baird S, Korneluk R, Liston P, McKenzie AE, Pratt C;

XX

PI Tsang B;

XX

DR WPI: 1998-467164/40.

DR N-PSDB: AA155039.

XX

XX Inducing apoptosis in proliferative mammalian cells with inhibitor

XX of IAP or NAIP polypeptide also methods for prognosis based on

XX presence of IAP and NAIP, specifically applied to cancers involving

XX p53 mutations

XX

PS Disclosure: Fig 2; 147pp; English.

XX

CC This sequence is the human IAP-1 protein, which is an inhibitor of

CC apoptosis protein (IAP), and can be used in the method of the invention.

CC The method is for enhancing apoptosis in cells from a mammal with

CC proliferative disease by treatment with a compound that inhibits

CC biological activity of an IAP or NAIP polypeptide. The inhibitory

CC compounds are used to treat proliferative diseases, specifically cancers of

CC ovary, breast, pancreas, lymph nodes, skin, blood, lung, brain, kidney,

CC liver, nasopharynx, thyroid/central nervous system, prostate, colon,

CC rectum, cervix or endometrium, particularly to increase their sensitivity

CC to chemotherapeutic agents. High levels of the IAP or NAIP proteins are

CC detected in many cancers and are associated with poor prognosis,

CC resistance to chemotherapeutic agents and mutations in p53 (it is

CC suggested that wild-type p53 suppresses transcription of the IAP or NAIP

CC genes). Transgenic animals are used for testing the effects of antisense
 CC oligonucleotides and for screening for the inhibitors.

XX Sequence 604 AA;

Query Match 100.0%; Score 294; DB 19; Length 604;
 Best Local Similarity 100.0%; Pred. No. 2,7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 PEOLASAGFYVGNSDVVCFCDCGGLRCWESGDDPWVQHAKEPRCE 48
 |||||||
 Db 273 peglasagfyyvgnsdvvcfcdcgglrcwesgddpwvqhakwfpnce 320

RESULT 6
 AA152703
 ID AA152703 standard; Protein: 604 AA.

XX AA152703;

XX 26-JAN-2000 (first entry)

XX Human cellular inhibitor of apoptosis-2 protein.

XX Identification; genetic target; gene modulation; human;
 XX antisense oligonucleotide; phosphorothioate; target validation;
 XX nucleotide sequence-based technology; antisense drug discovery.

OS Homo sapiens.

XX MO9953101-A1.

XX 21-OCT-1999.

XX 13-APR-1999; 99MO-US08268.

XX 13-APR-1999; 98US-0081483.

XX 28-APR-1999; 98US-0067638.

XX (ISIS-) ISIS PHARM INC.

XX Cowsert LM, Baker BF, Mcnell J, Freier SM, Sasnor HM, Brooks DG;
 PI Ohasi C, Wyatt JR, Borchers AH, Vickers TA;

XX WPI: 1999-620446/53.

XX N-PSDB; AA241005.

XX Identify compounds which modulate expression of nucleic acids, used
 PT to provide compounds having defined physical, chemical or bioactive
 PT properties, e.g. antisense activity -

PS Example 20; Page 197-202; 264pp; English.

XX A method has been developed of defining a set of compounds that modulate
 CC the expression of a target nucleic acid (tNA) sequence via binding of
 CC the compounds with the tNA sequence. The method comprises generating a
 CC library of virtual compounds in silico according to defined criteria,
 CC and evaluating in silico the binding of the virtual compounds with the
 CC tNA according to defined criteria. Also described are: (1) a method of
 CC defining a set of oligonucleotides (ONS) that modulate the expression of
 CC a tNA sequence via binding of the ONS with the tNA sequence comprising
 CC generating a library of virtual compounds in silico according to defined
 CC criteria, and evaluating in silico the binding of the virtual ONS with
 CC the tNA according to defined criteria; and (2) a method of defining a
 CC set of compounds that modulate the expression of a tNA sequence via
 CC binding of the compounds with the tNA. The methods can be used for the
 CC generation and identification of synthetic compounds having defined
 CC physical, chemical or bioactive properties. Information gathered from
 CC assays of such compounds is used to identify nucleic acid sequences that
 CC are tractable to a variety of nucleotide sequence-based technologies,
 CC e.g. antisense drug discovery and target validation. AA240857 to
 CC AA241220, and AA152701 to AA152706, represent sequences used in the

CC exemplification of the present invention.

XX Sequence 604 AA;

Query Match 100.0%; Score 294; DB 20; Length 604;
 Best Local Similarity 100.0%; Pred. No. 2,7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 PEOLASAGFYVGNSDVVCFCDCGGLRCWESGDDPWVQHAKEPRCE 48
 |||||||
 Db 273 peglasagfyyvgnsdvvcfcdcgglrcwesgddpwvqhakwfpnce 320

RESULT 7
 AA133997
 ID AA133997 standard; Protein: 604 AA.

XX AA133997;

XX 26-NOV-1999 (first entry)

XX Human cellular inhibitor of apoptosis-2 sequence.

XX Cellular inhibitor of Apoptosis-2; antisense; diagnostic; therapeutic;
 XX c-IAP-2; propylxaxis; infection; inflammation; tumor formation.

XX Homo sapiens.

XX US5958771-A.

XX 28-SEP-1999.

XX 03-DEC-1998; 98US-0205144.

XX 03-DEC-1998; 98US-0205144.

XX (ISIS-) ISIS PHARM INC.

XX Bennett CF, Cowsert LM, Ackermann EJ;

XX WPI: 1999-561045/47.

XX N-PSDB; AA222096.

XX Antisense compounds complementary to Cellular Inhibitor of Apoptosis-2
 PT useful for e.g. diagnostics, therapeutics, and as research reagents -

PS Example 13; Columns 45-50; 33pp; English.

XX The invention provides antisense compounds of 8-30 nucleotides that
 CC inhibit the expression of human Cellular Inhibitor of Apoptosis-2
 CC (c-IAP-2). The antisense compounds may be used for diagnostics,
 CC therapeutics (for modulating the expression of c-IAP-2), propylaxis
 CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
 CC as research reagents (e.g. to distinguish between members of a biological
 CC pathway) and in kits. The present sequence represents the human cellular
 CC inhibitor of apoptosis-2.

XX Sequence 604 AA;

Query Match 100.0%; Score 294; DB 20; Length 604;
 Best Local Similarity 100.0%; Pred. No. 2,7e-28;

Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

YY 1 PEOLASAGFYVGNSDVVCFCDCGGLRCWESGDDPWVQHAKEPRCE 48
 |||||||
 Db 273 peglasagfyyvgnsdvvcfcdcgglrcwesgddpwvqhakwfpnce 320

RESULT 8
 AAB50694
 ID AAB50694 standard; Protein: 1141 AA.

```

XX AC AAB50694;
XX XX 19-MAR-2001 (first entry)
XX DE Human AP12-MLR chimeric protein sequence.
XX DE
XX DE Human AP12-MLR chimeric; chimeric; apoptosis inhibitor 2; MLR; AP12;
XX KW mucosa-associated lymphoid tissue lymphoma associated translocation;
XX KW chromosome 11 region q21-22.3; chromosome 18 region q21.1-22.2;
XX KW molecular characterisation; chromosome translocation; carcinogenesis;
XX KW fusion protein; malignancy.
XX OS Chimeric - Homo sapiens.
XX OS Synthetic.
XX PN MO200073500-AL.
XX PD 07-DEC-2000.
XX PE 26-MAY-2000; 2000MO-EP04796.
XX PR 27-MAY-1999; 99EP-0201683.
XX RA (VLA-1) VLAMS INTERUNIVERSITAIR INST BIOTECHNOG.
XX PI Baens M, Marynen P, Dieckmann J;
XX DR WPL: 2001-061556/07.
XX DR N-PSDB; AAC0972.
XX PT Determining if a tissue sample has a chromosome (11:18) translocation
XX PT associated with malignancies by amplifying a nucleic acid sample using
XX PT primers complementary to chromosome 11 region q21-22.3 and chromosome
XX PT 18 region q21.1-22.2.
XX PS Claim 12; Fig 5; 47pp; English.
XX CC The present invention describes a method for determining if a tissue
XX CC sample comprises a cell with a chromosome (11:18) translocation
XX CC associated with malignancies such as mucosa-associated lymphoid tissue
XX CC (MALT) lymphomas. The method comprises subjecting a sample nucleic acid
XX CC to amplification using primers complementary to sequences which are on
XX CC chromosome 11 region q21-22.3 and on chromosome 18 region q21.1-22. The
XX CC method can be used for determining if a tissue sample or analogue
XX CC such as mucosa-associated lymphoid tissue lymphomas. The nucleic acid or
XX CC the antibody may be used as a probe for detection, for hybridisation to
XX CC southern blot cell DNAs or for in situ hybridisation of cells, or for
XX CC determining the presence of complementary DNA. The present sequence
XX CC represents the specifically claimed chimeric human apoptosis inhibitor 2
XX CC (AP12)/MALT-lymphoma associated translocation (MLR) protein.
XX SQ Sequence 1141 AA;

```

Query Match 100.0%; Score 294; DB 22; Length 1141;
 Best Local Similarity 100.0%; Pred. No. 5,4e-28;
 Matches 48; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

```

QY 1 PEGLASAGFYVGNSDVKCFCCDGLRCWESGDDPWVGHAKWPRCE 48
DB 273 pegasagfyyvgnsdvkcfcfcddgglrcwesgddpwvghakwfpnce 320

```

RESULT 9
 AAM13551
 ID AAM13551 standard; Protein: 48 AA.
 AC AAM13551;
 XX AAM13551;
 XX 22-JUL-1997 (first entry)
 XX

```

DE DE Human c-IAP1 repeat 3.
XX XX
XX KW IAP; inhibitor; apoptosis; RING finger domain; restinosis;
XX KW myocardial infarction; nephritis; HIV.
XX XX
XX OS Homo sapiens.
XX PN MO9706182-AL.
XX PD 20-FEB-1997.
XX PE 06-AUG-1996; 96MO-US12860.
XX PR 08-DEC-1995; 95US-0569749.
XX PR 08-AUG-1995; 95US-0512946.
XX RA (TUL-1) TULARIC INC.
XX PI Goeddel DV, Rothe M;
XX DR WPL: 1997-154209/14.
XX PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
XX PT useful for apoptosis regulation in cells to reduce or increase
XX PT apoptosis and for pharmacological screening
XX PS Claim 3; Page 25; 35pp; English.
XX CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
XX CC AAV1590/761591) comprise a series of defined structural domain
XX CC repeats and/or a RING finger domain. In particular, at least two of
XX CC a first domain repeat (AAW13547 or AAW13548), a second domain repeat
XX CC (AAW13549 or AAW13550), and a third domain repeat (AAW13551 or AAW13552)
XX CC and/or a RING finger domain (AAW13553 or AAW13554), or a consensus
XX CC sequence derived from these human genes.
XX CC The nucleic acid is used for recombinant prodn. of human cellular
XX CC inhibitor of apoptosis protein which modulates apoptosis
XX CC regulation. The nucleic acids are useful in therapies where
XX CC increased cell-specific apoptosis is desired, e.g. in restinosis,
XX CC inflammatory disease states, myocardial infarction, glomerular
XX CC nephritis, transplant rejection and infectious diseases, e.g. HIV.
XX CC They can also be used in conditions requiring a reduction in
XX CC apoptosis.
XX SQ Sequence 48 AA;

```

Query Match 95.9%; Score 282; DB 18; Length 48;
 Best Local Similarity 93.8%; Pred. No. 5,8e-28;
 Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

```

QY 1 PEGLASAGFYVGNSDVKCFCCDGLRCWESGDDPWVGHAKWPRCE 48
DB 1 pegasagfyyvgnrdvkcfcfcddgglrcwesgddpwvghakwfpnce 48

```

RESULT 10
 AAM04583
 ID AAM04583 standard; Protein: 438 AA.
 AC AAM04583;
 XX AAM04583;
 XX 07-FEB-1997 (first entry)
 XX Human inhibitor of apoptosis gene 1.
 XX Inhibitor of apoptosis 1; hIAP-1; degenerative disease;
 XX Rheumatoid arthritis; septic shock; antiviral; trauma; stroke;
 KW cell death; oncogenesis; cancer; diagnosis; therapy.
 OS Homo sapiens.
 XX W09635703-AL.
 XX

XX 14-NOV-1996.
 PD
 XX 11-MAY-1995; 95MO-US05922.
 PF
 XX 11-MAY-1995; 95MO-US05922.
 PR
 XX (HUMA-) HUMAN GENOME SCI INC.
 PA
 X1 He WM, Hudson PL, Rosen CA;
 PI WPI: 1996-518608/51.
 XX N-PSDB: AAT43709.
 DR
 XX Poly nucleotide encoding human inhibitor of apoptosis gene 1 - useful
 PT for treating degenerative diseases, as antiviral defence mechanism
 PF and preventing cell death during trauma and strokes
 F1
 XX Claim 1: Page 40-41; 53pp; English.
 PS
 XX Human inhibitor of apoptosis 1 (hIAP-1) (AAW04583) is a protein,
 CC useful for treating degenerative diseases, rheumatoid arthritis,
 CC septic shock, as an antiviral defence mechanism, and for
 CC preventing cell death during strokes or trauma. Its amino acid
 CC sequence was deduced from a cDNA clone (AAT43709) that can be obtd.
 CC from human Jurkat cell lines or human osteoclastoma stromal cell
 CC lines. Recombinant hIAP-1 can be produced in prokaryotic or
 CC eukaryotic host cells, or expressed in vivo. It can also be used
 CC to screen for modulators of hIAP-1 activity.
 CC
 SO Sequence 438 AA;

Query Match 95.9%; Score 282; DB 17; Length 438;
 Best Local Similarity 93.8%; Pred. No. 6e-27;
 Matches 43; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

OY 1 PEOJASAGTYVGNSDVKRCFCGGLRCMESGDDPWVQHAKEPFC 48
 DB 107 peqlasagtyvgnndvkcfcddgllrcwesgdppvehakwiprce 154

RESULT 11
 AAW19746
 ID AAW19746 standard; Protein: 618 AA.
 XX
 AC AAW19746;
 XX
 DT 16-SEP-1997 (first entry)
 DE Human Inhibitor of apoptosis protein homologue MIH.
 KW Inhibitor of apoptosis protein; IAP; mammalian IAP homologue; MIH;
 KW degenerative disease; infectious disease; autoimmune disease;
 KW cancer; therapy; diagnosis.
 XX
 OS Homo sapiens.
 XX
 PH Key Location/Qualifiers
 FT Region 46..113
 F1 /label= BIR
 FT Region 184..250
 FT /label= BIR
 FT Region 269..337
 FT /label= BIR
 FT Region 569..606
 FT /label= RING_finger
 XX
 PN WO9723501-A1.
 XX
 PD 03-JUL-1997.
 XX
 PF 20-DEC-1996; 96MO-AU00827.

XX 22-DEC-1995; 95AU-0007275.
 PR
 XX (AMRA-) AMRAD OPERATIONS PTY LTD.
 PA
 XX Vaux DL;
 PI
 XX WPI: 1997-350966/32.
 DR N-PSDB: AAT72711.
 XX
 PT Isolated protein homologues of viral inhibitors of apoptosis - used
 PT to modulate apoptosis for treatment of degenerative, infectious or
 PF autoimmune diseases and cancer
 PS
 XX Claim 8: Page 51-54; 136pp; English.
 PS
 XX Mammalian IAP homologue B (MIH) (AAW19746) is a human homologue of
 CC baculovirus inhibitor of apoptosis protein (IAP). Its amino acid
 CC sequence was deduced from a cDNA clone (see also AAT72711) isolated
 CC from a human foetal liver cDNA library using primers based on
 CC human EST sequences that resembled the BIR repeats of Oryza
 CC pseudotsugata polyhedrosis virus IAP. IAP homologues (see also
 CC AAW19745 and AAW19747-52) and their derivatives and chemical analogues
 CC can be used in methods for modulating apoptosis in animal cells,
 CC specifically for treatment, by inhibition, of degenerative and
 CC infectious disease or, by promotion, of cancer and autoimmune
 CC disease.
 CC
 SO Sequence 618 AA;

Query Match 95.9%; Score 282; DB 18; Length 618;
 Best Local Similarity 93.8%; Pred. No. 8.6e-27;
 Matches 43; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

OY 1 PEOJASAGTYVGNSDVKRCFCGGLRCMESGDDPWVQHAKEPFC 48
 DB 287 peqlasagtyvgnndvkcfcddgllrcwesgdppvehakwiprce 334

RESULT 12
 AAW13545
 ID AAW13545 standard; Protein: 618 AA.
 XX
 AC AAW13545;
 XX
 DT 22-JUL-1997 (first entry)
 DE Human c-IAP1.
 KW IAP; Inhibitor; apoptosis; RING finger domain; restinosis;
 KW myocardial infarction; nephritis; HIV.
 XX
 OS Homo sapiens.
 XX
 PN WO9706182-A1.
 XX
 PD 20-FEB-1997.
 DE
 PF 06-AUG-1996; 96MO-US12860.
 XX
 PR 08-DEC-1995; 95US-0569749.
 PR 08-AUG-1995; 95US-0512946.
 XX
 PA (TULA-) TULARIK INC.
 XX
 PI Goeddel DV, Roche M;
 XX
 DR WPI: 1997-154209/14.
 DR N-PSDB: AAT61590.
 XX
 PT Nucleic acids encoding cellular inhibitor of apoptosis proteins -
 PT useful for apoptosis regulation in cells to reduce or increase

PT apoptosis and for pharmacological screening
 XX
 PS Disclosure; Page 18-20; 35pp; English.
 XX
 CC The human cellular inhibitor of apoptosis proteins (c-IAP1/2 -
 CC AAM61590/761591) comprise a series of defined structural domain
 CC repeats and/or a RING finger domain; in particular, at least two of
 CC a first domain repeat (AAM13547 or AAM13548), a second domain repeat
 CC (AAM13549 or AAM13550), and a third domain repeat (AAM13551 or AAM13552)
 CC and/or a RING finger domain (AAM13553 or AAM13554), or a consensus
 CC sequence derived from these human genes.
 CC The nucleic acid is used for recombinant prodn. of human cellular
 CC inhibition of apoptosis protein which modulates apoptosis
 CC regulation. The nucleic acids are useful in therapies where
 CC increased cell-specific apoptosis is desired, e.g. in restinosis,
 CC inflammatory disease states, myocardial infarction, glomerular
 CC nephritis, transplant rejection and infectious diseases e.g. HIV.
 CC They can also be used in conditions requiring a reduction in
 CC apoptosis.
 CC
 XX
 SQ Sequence 618 AA:
 XX
 XX
 Query Match 95.9%; Score 282; DB 18; Length 618;
 Best Local Similarity 93.8%; Pred. No. 8,6e-27;
 Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 0Y 1 PEOIASAGFYVYNSDDVKPCDCGGLRCWESGDDPMVOHAKWPRCE 48
 |||||
 Db 287 peqlasagfyyvgrndvkcfcddgllrcwesgddpwehahkwfprce 334
 RESULT 13
 AAY33998
 ID AAY33998 standard; Protein; 618 AA.
 XX
 AC AAY33998;
 XX
 DT 26-NOV-1999 (first entry)
 XX
 DE Human cellular inhibitor of apoptosis-1 sequence.
 XX
 KW Cellular inhibitor of Apoptosis-1; antisense; diagnostic; therapeutic;
 KW c-IAP-1; prophylaxis; infection; inflammation; tumor formation.
 XX
 OS Homo sapiens.
 XX
 PN US595872-A.
 XX
 PD 28-SEP-1999.
 XX
 PF 03-DEC-1998; 98US-0205204.
 XX
 PR 03-DEC-1998; 98US-0205204.
 XX
 PA (ISIS-) ISIS PHARM INC.
 PI Bennett CF, Cowser LM, Ackermann EJ;
 DR WPI: 1999-561047/47.
 DR N-PSDB: AAZ22143.
 XX
 XX Antisense compounds complementary to Cellular inhibitor of Apoptosis-1
 PT useful for e.g. diagnostics, therapeutics, and as research reagents -
 PS Example 13; Columns 41-46; 32pp; English.
 XX
 CC The invention provides antisense compounds of 8-30 nucleotides that
 CC inhibit the expression of human Cellular inhibitor of Apoptosis-1
 CC (c-IAP-1). The antisense compounds may be used for diagnostics,
 CC therapeutics (for modulating the expression of c-IAP-1), prophylaxis
 CC (e.g. to prevent or delay infection, inflammation, or tumor formation),
 CC as research reagents (e.g. to distinguish between members of a biological

CC pathway) and in kits. The present sequence represents the human cellular
 CC inhibitor of apoptosis-1.
 XX
 SQ Sequence 618 AA:
 XX
 XX
 Query Match 95.9%; Score 282; DB 20; Length 618;
 Best Local Similarity 93.8%; Pred. No. 8,6e-27;
 Matches 45; Conservative 2; Mismatches 1; Indels 0; Gaps 0;
 0Y 1 PEOIASAGFYVYNSDDVKPCDCGGLRCWESGDDPMVOHAKWPRCE 48
 |||||
 Db 287 peqlasagfyyvgrndvkcfcddgllrcwesgddpwehahkwfprce 334
 RESULT 14
 AAM19583
 ID AAM19583 standard; Protein; 618 AA.
 XX
 AC AAM19583;
 XX
 DT 02-SEP-1997 (first entry)
 XX
 DE Human apoptosis inhibitor HIAP-2.
 XX
 KW Apoptosis inhibitor; HIAP-2; HIV; AIDS; neurodegeneration;
 KW myelodysplastic syndrome; ischemic myocardial infarction; stroke;
 KW reperfusion injury; toxin-induced liver disease; gene therapy;
 KW diagnosis.
 XX
 OS Homo sapiens.
 XX
 EH Key Location/Qualifiers
 FT Domain 46..113
 FT Domain /label= BIR-1
 FT Domain 184..250
 FT Domain /label= BIR-2
 FT Domain 269..336
 FT Domain /label= BIR-3
 FT Domain 560..605
 FT Domain /label= Ring-zinc-finger
 XX
 PN W09706255-A2.
 XX
 PD 20-FEB-1997.
 XX
 PF 05-AUG-1996; 96WO-1B01022.
 XX
 PR 22-DEC-1995; 95US-0576956.
 PR 04-AUG-1995; 95US-0511485.
 XX
 PA (UYOT-) UNIV OTTAWA.
 XX
 PI Baird S, Korneluk RG, Liston P, Mackenzie AE;
 DR WPI: 1997-154262/14.
 DR N-PSDB: AAT70838.
 XX
 XX Nucleic acid encoding an inhibitor of apoptosis polypeptide - used
 PT to inhibit apoptosis in e.g. HIV or AIDS patients, and for detector
 PT of susceptibility to apoptotic disease
 XX
 PS Claim 27; Page 75-77; 21pp; English.
 XX
 CC Human XIAP, HIAP-1 and HIAP-2 and murine M-XIAP, M-HIAP-1 and
 CC M-HIAP-2 (AAM19581-86) are a new class of mammalian proteins that
 CC are inhibitors of apoptosis (IAP) and which are characterised by
 CC the presence of a ring zinc finger domain (see also AAM19587) and at
 CC least one BIR (baculovirus IAP repeat) domain (see also AAM19588)
 CC The HIAP amino acid sequences were deduced from cDNA clones (AAT70837
 CC and AAT70838) from a human liver library. IAP polypeptides can be
 CC expressed in host cells (in vitro or in vivo) and used in methods
 CC for treating diseases and disorders involving apoptosis, esp. in a
